

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-7 (canceled).

Claim 8 (previously presented): A reversible multicolor recording medium comprising:

one or more recording layers each containing a plurality of reversible thermal coloring compositions having different coloring tones, wherein the recording layers are formed to be separated from and stacked on a surface direction of a supporting substrate; and

said plurality of reversible thermal coloring compositions containing a light-to-heat transforming material which absorb infrared rays having different wavelength ranges to generate heat, respectively;

wherein an absorption peak wavelength of said light-to-heat transforming material contained in said recording layers is a longest wavelength at a layer formed nearest said supporting substrate, and decreases in wavelength as the layer is closer to the surface layer in the stacked order.

Claim 9 (previously presented): The reversible multicolor recording medium according to claim 8, wherein at least one of said light-to-heat transforming materials is cyanine dyes or phthalocyanine dyes.

Claim 10 (previously presented): The reversible multicolor recording medium according to claim 8, wherein said plurality of recording layers are formed by stacking said recording layers via heat insulating layers, respectively.

Claim 11 (previously presented): The reversible multicolor recording medium according to claim 8 wherein a protective layer is formed as an uppermost layer.

Claim 12 (previously presented): The reversible multicolor recording medium according to claim 8, wherein

said recording layers comprise a color-forming compound having an electron donating property and a develop/subtractive agent having an electron accepting property, and

wherein said recording layers are reversibly changed to two states including a colored state and a decolored state by a reversible reaction between said color-forming compound having an electron donating property and said develop/subtractive agent having an electron accepting property.

Claim 13 (previously presented): A method for recording image information using a reversible multicolor recording medium,

said reversible multicolor recording medium having one or more recording layers each containing a plurality of reversible thermal coloring compositions having different coloring tones, formed separated from and stacked on a surface direction of a supporting substrate, said reversible thermal coloring compositions containing light-to-heat transforming materials which absorb infrared rays having different wavelength ranges to generate heat, respectively, and an absorption peak wavelength of said light-to-heat transforming material contained in said recording layers that is a longest wavelength at a layer formed nearest said supporting substrate, and decreases wavelength as the layer is closer to the surface layer in the stacked order the method comprising:

setting the recording layers in a decolored state preliminarily by performing a heat treatment;

exposing said recording layers by irradiating with an infrared ray having a selected wavelength range corresponding to a selected recording layer, in accordance with predetermined image information; and

allowing said recording layers to be selectively colored by generating to heat.

Claim 14 (previously presented): A method for recording medium recording image information using a reversible multicolor recording medium,

said reversible multicolor recording medium having one or more recording layers each containing a plurality of reversible thermal coloring compositions having different coloring tones, formed separated from and stacked on a surface direction of a supporting substrate, said reversible thermal coloring compositions containing light-to-heat transforming materials which absorb infrared rays having different wavelength ranges to generate heat, respectively, and an absorption peak wavelength of said light-to-heat transforming material contained in said recording layers is a longest wavelength at a layer formed nearest said supporting substrate, and decreases in wavelength as the layer is closer to the surface layer in the stacked order, the method comprising:

setting the recording layers in a colored state preliminarily by performing a heat treatment;

exposing said recording layers by irradiating with an infrared ray having a selected wavelength range corresponding to a selected recording layer, in accordance with predetermined image information; and

allowing said recording layers to be selectively decolored by generating to heat.